This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims

1.(Currently amended) A method for processing network discovery data, comprising the following operations:

defining a plurality of network data aggregations, wherein the network data aggregations are based on switch boundaries, wherein interswitch links are used to define the plurality of network data aggregations, and wherein the network data aggregations are defined via an XML file using a DTD format;

computing a current state value for at least one of the network data aggregations, wherein the current state value is a CRC code, and wherein the CRC code is computed utilizing data associated with the corresponding network data aggregation and a CRC polynomial, wherein the CRC polynomial is a 32-bit CRC polynomial which has the following form:

$$x^{32} + x^{26} + x^{23} + x^{22} + x^{16} + x^{12} + x^{11} + x^{10} + x^{8} + x^{7} + x^{5} + x^{4} + x^{2} + x + 1;$$

for at least one current state value, determining if the current state value is different than a corresponding prior state value for a corresponding network data aggregation; and

merging data corresponding with at least one network data aggregation determined to have a current state value that is different than a corresponding prior state value, with prior data corresponding with at least one different network data aggregation determined to have a current state value that is not different than a corresponding prior state value for the different network data aggregation.

2-7. (Canceled)

8. (Previously presented)   The method of claim 1, wherein the operation of computing a current state value for at least one of the data aggregations is performed by at least one agent discovery service.

9. (Canceled)

10. (Previously presented)   The method of claim 1, wherein the operation of computing a
current state value for at least one of the data aggregations comprises processing data in the at
least one of the data aggregations in a prescribed order.

11. (Previously presented)   The method of claim 1, wherein the operations further comprise,
prior to the operation of computing a current state value for at least one of the data aggregations,
organizing data in the at least one of the data aggregations in a prescribed order.

12-15. (Canceled)

16. (Previously presented)   The method of claim 1, wherein the operation of, for at least one
current state value, determining if the current state value is different than a corresponding prior
state value, is performed for each of a plurality of levels in a hierarchy of data aggregations.

17. (Currently amended)   The method of claim 16, wherein the plurality of data aggregations
includes at least one data aggregation that is a subset of a corresponding superset data
aggregation, and wherein the subset data aggregation is located in [[the]] a hierarchal ordering
after the corresponding superset data aggregation.

18. (Previously presented)   The method of claim 1, wherein the operations further comprise
requesting polling on data aggregations that are subsets of a superset data aggregation that has a
changed state value.

19-36. (Canceled)

37. (New) The method of claim 1, wherein the switch boundaries are defined at links that
are chosen to minimize a number of links at the switch boundaries.

38. (New) A system, comprising:

a memory; and

a processing device coupled to the memory, wherein the processing device is
programmed to perform operations for processing network discovery data, the operations
comprising:

defining a plurality of network data aggregations, wherein the network data
aggregations are based on switch boundaries, wherein interswitch links are used to define
the plurality of network data aggregations, and wherein the network data aggregations are
defined via an XML file using a DTD format;

computing a current state value for at least one of the network data aggregations,
wherein the current state value is a CRC code, and wherein the CRC code is computed
utilizing data associated with the corresponding network data aggregation and a CRC
polynomial;

for at least one current state value, determining if the current state value is
different than a corresponding prior state value for a corresponding network data
aggregation; and

merging data corresponding with at least one network data aggregation
determined to have a current state value that is different than a corresponding prior
state value, with prior data corresponding with at least one different network data
aggregation determined to have a current state value that is not different than a
corresponding prior state value for the different network data aggregation.

39. (New)   The system of claim 38, wherein the operation of computing a current state value
for at least one of the data aggregations is performed by at least one agent discovery service.

40. (New)   The system of claim 38, wherein the operation of computing a current state value
for at least one of the data aggregations comprises processing data in the at least one of the data
aggregations in a prescribed order.

41. (New)   The system of claim 38, wherein the operations further comprise, prior to the operation of computing a current state value for at least one of the data aggregations, organizing data in the at least one of the data aggregations in a prescribed order.

42. (New)   The system of claim 38, wherein the operation of, for at least one current state value, determining if the current state value is different than a corresponding prior state value, is performed for each of a plurality of levels in a hierarchy of data aggregations.

43. (New)   The system of claim 42, wherein the plurality of data aggregations includes at least one data aggregation that is a subset of a corresponding superset data aggregation, and wherein the subset data aggregation is located in a hierarchal ordering after the corresponding superset data aggregation.

44. (New)   The system of claim 38, wherein the operations further comprise requesting polling on data aggregations that are subsets of a superset data aggregation that has a changed state value.

45. (New)   The system of claim 38, wherein the switch boundaries are defined at links that are chosen to minimize a number of links at the switch boundaries.

46.(New) A computer readable storage medium tangibly embodying a program of computer-readable instructions executable by a digital processing apparatus to perform operations for processing network discovery data, the operations comprising:

defining a plurality of network data aggregations, wherein the network data aggregations are based on switch boundaries, wherein interswitch links are used to define the plurality of network data aggregations, and wherein the network data aggregations are defined via an XML file using a DTD format;

computing a current state value for at least one of the network data aggregations, wherein the current state value is a CRC code, and wherein the CRC code is computed utilizing data associated with the corresponding network data aggregation and a CRC polynomial;

for at least one current state value, determining if the current state value is different
than a corresponding prior state value for a corresponding network data aggregation; and

merging data corresponding with at least one network data aggregation determined
to have a current state value that is different than a corresponding prior state value, with
prior data corresponding with at least one different network data aggregation determined to
have a current state value that is not different than a corresponding prior state value for the
different network data aggregation.

47. (New)   The computer readable storage medium of claim 46, wherein the operation of
computing a current state value for at least one of the data aggregations is performed by at least
one agent discovery service.

48. (New)   The computer readable storage medium of claim 46, wherein the operation of
computing a current state value for at least one of the data aggregations comprises processing
data in the at least one of the data aggregations in a prescribed order.

49. (New)   The computer readable storage medium of claim 46, wherein the operations
further comprise, prior to the operation of computing a current state value for at least one of the
data aggregations, organizing data in the at least one of the data aggregations in a prescribed
order.

50. (New)   The computer readable storage medium of claim 46, wherein the operation of, for
at least one current state value, determining if the current state value is different than a
corresponding prior state value, is performed for each of a plurality of levels in a hierarchy of
data aggregations.

51. (New)   The computer readable storage medium of claim 50, wherein the plurality of data
aggregations includes at least one data aggregation that is a subset of a corresponding superset
data aggregation, and wherein the subset data aggregation is located in a hierarchal ordering after
the corresponding superset data aggregation.

52. (New)   The computer readable storage medium of claim 46, wherein the operations further comprise requesting polling on data aggregations that are subsets of a superset data aggregation that has a changed state value.

53. (New)   The computer readable storage medium of claim 46, wherein the switch boundaries are defined at links that are chosen to minimize a number of links at the switch boundaries.